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How do you know if your network is ready for VoIP?

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While the cost savings and new applications of Voice over Internet Protocol (VoIP) are rapidly attracting many small to midsized companies to this popular communication solution, it may come with a significant price to your network. Not only must your network carry more traffic, but VoIP traffic demands very high performance and is more sensitive to normal network problems like delays and choppy communication. Even modest levels of impairment, unnoticed by users of most data applications, will cause significant caller frustration and will not sit well with your customers, business partners, or even your own employees.

Before investing in a large-scale VoIP deployment or even in a small trial, you need to know how well your network infrastructure will handle the additional, quality-sensitive voice traffic. Many seemingly well-planned trials encounter delay after delay, exceed cost estimates, and are eventually cancelled when the network proves unable to meet the unique requirements VoIP places on it. However, these business issues can easily be avoided if your telecommunications provider properly assesses your network ahead of time to truly understand the scope and type of work required to ensure a successful transition to VoIP.

Gartner reports that 85% of networks are not ready for VoIP. What's even more shocking is that 75% of companies that do not perform a pre-implementation analysis of their network infrastructure will not realize a successful implementation. These are astonishing statistics because without conducting a network assessment with a quality assessment tool the potential for wasting time and money is extremely high. In order to increase the likelihood of a successful VoIP implementation, an evaluation of the network must be properly executed and should include the following four steps.

- 1. Pre-Deployment Assessment:** The pre-deployment assessment step analyzes the current capabilities of the network, evaluates its ability to support VoIP, identifies potential problems, and determines the requirements needed to handle expected call traffic. It is strongly recommended that the pre-deployment test is conducted prior to the purchase or installation of any VoIP equipment. The analysis should include such items as bandwidth, utilization, jitter, throughput and latency.
- 2. Post-Deployment Assessment:** The purpose of the post-deployment assessment is to gain a complete understanding of VoIP quality and network efficiencies prior to turning it on. This step determines the level of success and prevents issues with call quality or dropped calls. Whenever new equipment is introduced to a network the chance for unexpected issues rises; therefore, it is critical that the post-deployment assessment is not overlooked. This assessment should be immediately performed so any changes can be made in a timely manner.
- 3. Regular Maintenance Assessment:** As you're probably aware, your network is dynamic and constantly evolves. New devices such as IP phones, laptops, switches, and routers are added or removed. Whether it's a minor change or a major one it will impact your network. Therefore, it is

important to re-evaluate your network regularly to identify any faults so they can be corrected as soon as possible. Conducting ongoing assessments will help your organization increase quality, optimize system infrastructure, and reduce costs.

4. Break/Fix Strategy: Unfortunately, unforeseen things may happen to a network that are not readily identified by your IT department. Situations may be brought to your company's attention by a customer, an employee or business partner. The Yankee Group has reported that some companies' labor costs grew 30-40% with VoIP because of dealing with network problems. Having a network assessment tool in place enables one to take action quickly, diagnose the problem, and resolve it, while minimizing its impact to the system as a whole.

Essentially, these four key steps have illustrated the primary objective and the many benefits of conducting network assessments. Whether your company is about to take the plunge into VoIP or has already gone down that path, it is critical to deploy a tool that can accurately analyze your network. Surprisingly, most companies overlook this integral component of the VoIP implementation process and the research clearly shows its negative impact.

As you tap into this relatively new communication solution that's changing how business gets done, make sure you ask yourself this question. What is my telecommunications provider doing to create a network environment that enables my company to take full advantage of VoIP? If network assessment is not included in the response then something is definitely wrong.

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